

ADDITIONAL NOTES ON THE GENUS CORNUTIA. V

Harold N. Moldenke

Herbarium acronyms employed in this and in all of the other installments of these "Additional Notes" are explained in full in my "Fifth Summary", pp. 795—801 (1971) and its supplements.

CORNUTIA OBOVATA Urb., Symb. Ant. 1: 395. 1899.

Additional bibliography: Moldenke, Phytologia 14: 427. 1967; Moldenke, Fifth Summ. 1: 105 (1971) and 2: 876. 1971; Little, Woodbury, & Wadsworth, Trees P. R. & Virg. Isls. 2 [U. S. Dept. Agr. Agric. Handb. 449]: xii, 854, 862, 863, 997, 1001, 1014, & 1015, fig. 682. 1974.

Illustrations: Little, Woodbury, & Wadsworth, Trees P. R. & Virg. Isls. 2 [U. S. Dept. Agr. Agric. Handb. 449]: 863, fig. 682. 1974.

Gregory describes this as a tree, 30 feet tall, the trunk 8 inches in diameter at breast height, and the flowers "bluish", blooming profusely in July and with both immature and mature fruit in September. His no. 50 is said by him to be the "first record [of this species] for the forest service". Little and his associates (1974) record the additional vernacular name, "copá jigüerilla", and refer to the species as "This rare small tree known only from Puerto Rico....Rare and local in moist limestone and Cordillera forests at 1,000—3,000 feet altitude in central mountains of Puerto Rico. Discovered by Sintenis in 1885 on Monte Torrecillo near Barranquitas and found there afterwards by one of the authors. Rediscovered in 1938 at Río Abajo Forest and near San Sebastian. One tree was found in Guajataca Forest in 1940 and later years."

Additional citations: PUERTO RICO: L. E. Gregory LEG.50 [Herb. Forest Serv. 99432] (W—2761802), LEG.154 [Herb. Forest Serv. 99433] (W—2761801).

CORNUTIA ODORATA (Poepp. & Endl.) Poepp. ex Schau. in A. DC., Prodr. 11: 681. 1847.

Additional & emended bibliography: Ettingsh., Blatt-Skel. Dikot. pl. 32, fig. 8. 1861; Stapf, Ind. Lond. 6: 479. 1931; Hill & Salisb., Ind. Kew. Suppl. 10: 61 & 244. 1947; Cuatrecasas, Revist. Acad. Colomb. Cienc. 10: 235. 1958; J. F. Macbr., Field Mus. Publ. Bot. 13 (5): 690 & 691. 1960; Moldenke, Phytologia 14: 427—428. 1967; Moldenke, Résumé Suppl. 16: 5 & 29. 1968; Moldenke, Fifth Summ. 1: 116, 123, 135, 140, 362, 470, & 471 (1971) and 2: 530, 727, 787, & 876. 1971; Altschul, Drugs & Foods 246. 1973; López-Palacios, Pittiera 5: 16. 1973; López-Palacios, Revist. Fac. Farm. Univ. Los Andes 9 (12): 18 (1973) and 15: 24. 1975; Moldenke, Phytologia 32: 245. 1975.

Additional illustrations: Ettingsh., Blatt-Skel. Dikot. pl. 32,

fig. 8 [as Vitex umbrosa]. 1861.

Martin and his associates describe this plant as a small tree, 4--8 m. tall, the leaves strongly and pleasantly aromatic. In addition to months previously recorded by me in this series of notes, it has been found flowering in August. The corollas are described as having been "blue-violet" on Martin, Plowman, & Lau-Cam 1729 and as "violet" on their no. 1193. These collectors report that the leaves are macerated in water in Peru and used to wash the head in the treatment of earache, while the sapwood is heated in water and the water then dropped into the eyes in the treatment of eye-ache. The vernacular name, "oquera", is reported for it. Macbride (1960) calls it "A bush of stream banks, to over 2 meters tall, the large panicles of pale violet flowers with a strong lavender scent.....sometimes a tree, 8 meters high." He also comments that "Northern forms with appressed or denser or less indument have been given taxonomic standing; the specific status of this entity is open to review."

Additional citations: ECUADOR: Los Ríos: Harling 375 (N).  
PERU: Loreto: Martin, Plowman, & Lau-Cam 1193 (Oa), 1729 (Oa).

CORNUTIA ODORATA var. CALVESCENS Moldenke in Fedde, Repert.

Spec. Nov. 40: 179. 1936.

Additional bibliography: Moldenke, Phytologia 14: 427. 1967; Moldenke, Résumé Suppl. 16: 5. 1968; Moldenke, Fifth Summ. 1: 116 & 123 (1971) and 2: 876. 1971; López-Palacios, Pittiera 5: 18. 1973; López-Palacios, Revist. Fac. Farm. Univ. Los Andes 9 (13): 18 (1973) and 15: 24. 1975.

López-Palacios (1975) says that these plants are "Son arbolitos llamativos por su follaje, que por lo general es de un olor repugnante y viroso, y tienen hermosas flores azules...A orillas de la carretera, en la bajada de la Colonia Tovar hacia El Limón, en el Distrito Federal, he visto unos ejemplares jóvenes de hojas muy grandes, hasta de 53 cms. (López-Palacios 3009, MERF) que creo sean C. odorata var. calvescens, pero que aún no he registrado en mis trabajos porque en la época en que los vi (Diciembre 27-72) estaban muy jóvenes y se encontraban estériles."

Steyermark describes it as a tree, 15 m. tall, the leaves membranous, dull-green above and gray-green beneath, and the fruit dull-lavender. He found it growing at altitudes of 375--700 meters, in fruit in August.

Additional citations: VENEZUELA: Zulia: J. A. Steyermark 99904 (Ld, N).

CORNUTIA ODORATA var. COLOMBIANA Moldenke in Fedde, Repert.

Spec. Nov. 40: 173--179. 1936.

Additional bibliography: Moldenke, Phytologia 14: 428. 1967; Moldenke, Fifth Summ. 1: 116 (1971) and 2: 876. 1971; Moldenke, Phytologia 32: 245. 1975.

Recent collectors describe this plant as a shrub, 3 m. tall, or a tree, to 15 m. tall, the "ramas muy largas y grandes", inflorescence terminal, the calyx reddish-purple, the filaments

and anthers purple, the fruit at first green, later turning pink, and have encountered it at the borders of fincas, flowering and fruiting in July, at 2000 meters altitude. The corollas are said to have been purple on Barclay, Juajibioy, & Gama 3596 and pale-blue on Uribe Uribe 3787.

The Barclay, Juajibioy, & Gama 3169, distributed as this variety, is actually C. microcalycina var. pulverulenta Moldenke.

Additional citations: COLOMBIA: Cundinamarca: Barclay, Juajibioy, & Gama 3596 (W--2702113). Tolima: Uribe Uribe 3787 (E--1988249).

CORNUTIA PUBESCENS Gaertn. f. in Gaertn., Fruct. & Sem. Pl. 3: 172, pl. 213. 1805.

Additional synonymy: Cornutia cayenensis DC. ex Goyena, Fl.

Nicarag. 1: 568. 1911.

Additional bibliography: Goyena, Fl. Nicarag. 1: 568--568. 1911; Moldenke, Phytologia 14: 428. 1967; Moldenke, Fifth Summ. 1: 133, 362, 469, & 470 (1971) and 2: 876. 1971.

Goyena (1911) records this species from Nicaragua, but certainly in error. He records the vernacular name, "pujagüita de Catarina" for it.

CORNUTIA PYRAMIDATA L., Sp. Pl., ed. 1, imp. 1, 2: 628. 1753.

Emended synonymy: Cornutia flore pyramidato foliis incanis Plum., Nov. Pl. Amer. Gen. 32, pl. 17. 1703. Cornutia pyramidata Willd. ex Steud., Nom. Bot., ed. 1, 228. 1821 [not C. pyramidata Ait., 1789, nor Spreng., 1825].

Additional bibliography: [Retz.], Nom. Bot. 154. 1772; J. F. Omel. in L., Syst. Nat., ed. 13, imp. 1, 2: 946 (1789) and ed. 13, imp. 2, 2: 946. 1796; Raeusch., Nom. Bot., ed. 3, 173. 1797; Desf., Tabl. Ecol. Bot., ed. 1, 54 (1804) and ed. 2, 64. 1815; Pers., Sp. Pl. 3: 359. 1819; Voigt, Hort. Suburb. Calc. 473. 1845; Kuntze, Rev. Gen. Pl. 2: 506. 1891; Hartl, Beitr. Biol. Pfl. 37: 293. 1962; J. Jiménez, Archiv. Bot. & Biogeogr. Ital. 43: 14. 1967; Moldenke, Phytologia 14: 428--429. 1967; Uphof, Dict. Econ. Pl., ed. 2, 154. 1968; Gibson, Fieldiana Bot. 24 (9): 196 & 198. 1970; Moldenke, Fifth Summ. 1: 69, 79, 81, 95, 100, 102, 105, 108, 110, 111, 132, 362, 378, 385, 420, 470, & 471 (1971) and 2: 529, 530, & 876. 1971; A. L. Moldenke, Phytologia 23: 319. 1972; Moldenke, Phytologia 23: 414, 415, 430, & 454 (1972) and 25: 238. 1973; Anon., Biol. Abstr. 67 (3): B.A.S.I.C. S.59. 1973; Moldenke, Biol. Abstr. 56: 1243. 1973; Moldenke in Woodson, Schery, & al., Ann. Mo. Bot. Gard. 60: 126, 127, & 145. 1973; Hocking, Excerpt. Bot. A.23: 291. 1974; León & Alain, Fl. Cuba, imp. 2, 2: 313 & 314, fig. 135. 1974; Little, Woodbury, & Wadsworth, Trees P. R. & Virg. Isls. 2 [U. S. Dept. Agr. Agric. Handb. 449]: xii, 854, 862, 993--995, 1004, 1007, 1012, 1015, 1016, 1020, 1023, & 1024. 1974; Molina R., Ceiba 18: 66 (1974) and 19: 95. 1975; Moldenke, Phytologia 32: 235, 237, 238, & 240--243. 1975.

Additional illustrations: León & Alain, Fl. Cuba, imp. 2, 2: 313,

fig. 135. 1974.

Recent collectors describe this plant as a shrub, 2--3 m. tall, or a small bushy tree, 4--8 m. tall, the trunk 10--13 cm. in diameter at the base, the branches upright, the sap and leaves with a pungent odor, and the fruits black. They have found it growing in thickets, woody thickets along rivulets, thickets on bluffs overlooking the sea, on serpentine hills, on shrub-covered slopes, in stony places and weedy fields, and in scrub vegetation on hillslopes, from sealevel to 400 meters altitude, flowering in July, August, October, and November, and fruiting in August, October, and November. The corollas are said to have been "blue" on Jiménez 4771 and Liogier 11837, 11840, & 16579, "violet-blue" on Proctor 18212 and Wilbur, Dunn, Hespenheide, & Wiseman 7900, 8110, 8254, & 8309, "violet" on Proctor 16969, "lavender" on Wilbur, Dunn, Hespenheide, & Wiseman 7515, "purple" on Nicolson 1877, and "bright-purple" on Stern & Wasshausen 2453.

Raueschel (1797) gives its distribution as "Ins. carib." Wilbur and his associates refer to it both as "occasional" and as "common" in Dominica; Jiménez calls it "very common" in the Dominican Republic, where Liogier refers to it as "very common locally". The vernacular names, "bois cassava", "cormutia pyramidal", and "palo vidrio", are recorded for it (in addition to the ones previously recorded by me). Junell (1934) has discussed the gynoecium morphology in great detail.

Little and his associates (1974) refer to C. pyramidata as "A very rare shrub or small tree [in Puerto Rico] to 15 feet high and 3 inches in trunk diameter, with light gray furrowed bark. He records the following vernacular names: "azulejo", "bois coral", "bois pou-poule", "bos [sic] cassave", "flor lila", "hoja de zope", "matasano", "pale de vidrio", "pangoge", "salvilla", "tzultesmuk", "zapilote", and "zapilote morado".

Uphof (1968) says that the blue fruits are a source of dye which is used by the Creoles of Dominica and the natives of Yucatán as a blue ink. When the juice is boiled with lime a red ink is obtained. The juice is occasionally used by the Carib Amerinds for coloring thread and cloth.

It should be noted here that the C. pyramidata accredited to Aiton is a synonym of C. coerulea (Jacq.) Moldenke, while that ascribed to Sprengel is C. latifolia (H.B.K.) Moldenke. It is also worth noting here that Stuedel (1821) reduced C. pyramidata L. to synonymy under Hosta coerulea Jacq. [= Cormutia coerulea], but this is quite incorrect — it is only the Aiton homonym that should be disposed of in this manner. Desfontaines (1815) reduces Hosta coerulea Jacq. to synonymy under C. pyramidata, thus exactly reversing Stuedel! Gibson (1970) actually reduces C. grandifolia var. intermedia, C. latifolia f. alba, C. lilacina, C. lilacina var. velutina, and C. pyramidata var. isthmica to synonymy under typical C. pyramidata. Kuntze (1891) says that "Die von Schauer in DC. prod. aufgeführten 6 Arten lassen sich

nicht aufrecht erhalten." So he proceeds to divide C. pyramidata into "α normalis. Folia lata (1: 1 1/2 — 2 1/2) acuta integerrima supra pubescentia subtus incana subtomentosa. Panama: Matachin. β dentata O. Ktze. Folia dentata cet. ut α. Costa-rica 1300 m.....Ausser den seltenen var. dentata kann ich nur noch var. punctata OK (W.) als forma subglabra und var. longifolia OK. (Spr.) als forma angustifolia (1: 3 — 4) unterscheiden." Based on his type specimens, his var. normalis is now known as C. grandifolia var. normalis (Kuntze) Moldenke; his var. dentata is typical C. grandifolia (Schlecht. & Cham.) Schau.; var. punctata is C. coerules (Jacq.) Moldenke; and var. longifolia is C. grandifolia var. purpusi Moldenke.

The Gentle 166, Harmon & Fuentes 5820, Ortiz 1095 & 2735, and Souza Novelo 49, distributed as typical C. pyramidata, are actually var. isthmica Moldenke, Ortiz 2106 is the type collection of var. isthmica f. albescens Moldenke, Kuntze 1332 is the type collection of C. grandifolia var. normalis (Kuntze) Moldenke, Enriquez 68, Gilly & Hernandez Xolocotzi 109, Lundell 433, and Ortiz 1095 & 1330 are C. latifolia (H.B.K.) Moldenke, and Molina R. 26232 and Pfeifer 1729 are C. lilacina var. velutina Moldenke. Lawrence 764 is a mixture of C. microcalycina var. pulverulenta Moldenke and something non-verbenaceous.

Additional citations: CUBA: Oriente: León 11841 (W—2289312), 19646 (W—2289730). HISPANIOLA: Dominican Republic: J. de J. Jiménez 4771 (W—2450239); A. H. Liogier 11837 (N, Z), 11840 (Ld, N), 16579 (Ac, N). LEEWARD ISLANDS: Dominica: D. H. Nicolson 1877 (W—2468602); Stern & Wasshausen 2453 (W—2566044); Wilbur, Dunn, Hespenheide, & Wiseman 7515 (W—2579012), 7900 (Au—272144, N, W—2579014), 7981 (W—2579013), 8110 (W—2578988), 8254 (Au—272129, M1, N, W—2579010), 8309 (Au—272117, M1, N, W—2579011). WINDWARD ISLANDS: Grenada: G. R. Proctor 16959 (W—2613795). St. Lucia: G. R. Proctor 18212 (W—2585113); Sauer 4331 (Wb).

CORNUTIA PYRAMIDATA var. ISTHMICA Moldenke in Fedde, Repert.

Spec. Nov. 40: 187—188. 1936.

Synonymy: Cornutia pyramidata var. ismithia Moldenke, Phytologia 23: 430, in syn. 1972.

Additional bibliography: Moldenke, Phytologia 14: 429. 1967; Gibson, Fieldiana Bot. 24 (9): 196. 1970; Moldenke, Fifth Summ. 1: 69, 79, & 81 (1971) and 2: 876. 1971; Moldenke, Phytologia 23: 414, 415, 430, & 454. 1972; Anon., Biol. Abstr. 56 (3): B.A.S.I. C. S.59. 1973; Moldenke, Biol. Abstr. 56: 1243. 1973; Hocking, Excerpt. Bot. A.23: 291. 1974; Moldenke, Phytologia 32: 242. 1975.

Recent collectors describe this plant as a shrub, 1—10 m. tall, or a tree, 6.5 m. tall, the trunk 3—15 cm. in diameter,

and have encountered it in second growth, pine savannas and thickets, moist thickets in the savanna-rainforest transition zone, and on flat terrain of savannas with dark-red clay soil, at altitudes of 100 to 580 meters, flowering from May to July, and report the vernacular name, "chiople-kaax". The Lundells refer to it as "rare in dooryard and along street", perhaps implying its existence in cultivation in Yucatán. The corollas are said to have been "purplish" on Matuda 3398, "purple" on Souza Novedo 49, "bluish-purple" on Lundell & Lundell 7888, and "violet-blue" on Ortiz 2735.

Gibson (1970) reduces this variety to typical C. pyramidata L. and comments that "The indument of West Indian plants is albidous, while that of Central American species [sic] is usually fulvous, roseate, or purplish, but they differ in no other respect".

Material of var. isthmica has been widely distributed in herbaria as C. latifolia (H.B.K.) Moldenke or typical C. pyramidata L. On the other hand, the C. L. Lundell 433, Ortiz 1095, and Sorensen 7067, distributed as C. pyramidata var. isthmica, seem better placed as C. latifolia (H.B.K.) Moldenke.

Additional citations: MEXICO: Tabasco: Matuda 3398 (F-1028209, Ld, Mh, Mi, N). Yucatán: Lundell & Lundell 7888 (Du-363078, Ld, Mi, N, Se-165598); Souza Novedo 49 (Tu-98523). GUATEMALA: El Petén: Cox 3056 [Herb. Cox 1765] (Oa), 3343 [Herb. Cox 1804] (Oa); Harmon & Fuentes 5820 (N); R. T. Ortiz 1095 (N), 2735 (W-2740069). BRITISH HONDURAS: Gentle 16 (F-696392, N).

CORNUTIA PYRAMIDATA var. ISTHMICA f. ALBIDA Moldenke, Phytologia 23: 454. 1972.

Bibliography: Moldenke, Phytologia 23: 415 & 454. 1972; Hocking, Excerpt. Bot. A.23: 291. 1974.

Citations: GUATEMALA: El Petén: R. T. Ortiz 2106 (N-type).

CORNUTIA THYRSOIDEA Banks & Moldenke ex Moldenke in Fedde, Reperert. Spec. Nov. 40: 193-195. 1936.

Emended synonymy: Cornutia thyrsoidea Moldenke, Phytologia 14: 429, in syn. 1967; C. D. Adams, Flow. Pl. Jam. 636. 1972.

Additional bibliography: Hocking, Excerpt. Bot. A.12: 426. 1967; Moldenke, Phytologia 14: 429. 1967; Moldenke, Résumé Suppl. 15: 20. 1967; Moldenke, Biol. Abstr. 49: 4199. 1968; Moldenke, Fifth Summ. 1: 100, 362, & 471 (1971) and 2: 876. 1971; C. D. Adams, Flow. Pl. Jam. 636 & 811. 1972; A. L. Moldenke, Phytologia 23: 319. 1972.

Adams (1972) says of this species "Uncommon, in woodland margins on limestone hills; 1000-3000 feet; fl. May-Sept, fr. June, Harris 5199 & 9252, Powell 554, Proctor 10259; endemic."